Amendments to the Specification:

Please replace the paragraph beginning on line 10 of page 2 with the following amended paragraph:

A conventional screen/mesh stretching and mounting process is illustrated in **Figs. 1-4**. A screen/mesh is initially clamped **10** and stretched **12** in two directions. A single frame is then moved **14** to contact the screen/mesh. The single frame is then fixed to the screen/mesh permanently or via retensionable side mechanisms **16**. Excess screen/mesh is then trimmed and the screen/mesh is then ready for imaging and use **18**. **Fig. 2** illustrates effects **20** of two directional forces in a conventional screen/mesh stretching process. **Fig. 3** illustrates effects **22** of two directional stretching in a conventional screen/mesh stretching process. **Fig. 4** illustrates the usable area against waste area **24** of a screen/mesh in a conventional two directional stretching process.

Please replace the paragraph beginning on line 2 of page 9 with the following amended paragraph:

The present invention is a method and apparatus for stretching and mounting a screen printing screen. The apparatus generally includes a dual frame system for separating and supporting the tensioning forces on a screen printing screen/mesh in two directions. Significant tension forces are applied in [[the]] a print direction, while [[the]] perpendicular forces are lower and less significant. The inner frame ~~provides a support~~

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~~barrier type mechanism(s)~~ enables placement of an ink/fluid barrier(s) for ink/fluid retention on the screen/mesh for controlled transfer during the printing action.

Please replace the paragraph beginning on line 19 of page 9 with the following amended paragraph:

Accordingly, it is a principal aspect of the invention to provide a method for stretching and mounting a screen printing screen that provides an outer frame with two ends generally perpendicular to a print direction, provides an inner frame with two print direction sides generally parallel to the print direction, provides a screen/mesh with two print direction sides and two ends, the print direction sides being generally parallel to the print direction and the ends being generally perpendicular to the print direction, clamps an end of the screen/mesh ~~in a print direction~~, applies significant tension forces to the screen/mesh in the print direction to produce a stretched screen/mesh, moves the outer frame to contact the stretched screen/mesh, attaches the stretched screen/mesh to the ends of the outer frame ~~in the print direction~~, trims excess screen/mesh [[in]] along the print direction, moves the inner frame to contact the screen/mesh, attaches the screen/mesh to the print direction sides of the inner frame ~~in the print direction~~, and provides imaging/printing on the screen/mesh.

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Please replace the paragraph beginning on line 5 of page 10 with the following amended paragraph:

It is another aspect of the invention to provide an apparatus for stretching and mounting a screen printing screen, the apparatus including an inner frame with ~~a support barrier mechanism for ink/fluid retention for controlled transfer during a printing period to a screen/mesh with two print direction sides and two ends~~ two print direction sides for attaching to print direction sides of a screen/mesh, the sides of the inner frame being positionable generally parallel to a print direction; and an outer frame ~~configured for placing~~ with two ends for attaching to ends of a screen mesh, the ends of the outer frame being positionable generally perpendicular to the print direction, the outer frame being placeable outside the inner frame, wherein the inner and outer frames do not connect, support, or constrain each other to provide tension ~~and ink barrier functions~~, and enable application of significant tension forces ~~are applied~~ to the screen/mesh in [[a]] the print direction.

Please replace the paragraph beginning on line 13 of page 15 with the following amended paragraph:

Fig. 37 ~~is a top view of an inner frame side piece with a profiled end~~ illustrates a side piece with a profiled corner section that matches an end piece and a cross support according to the present invention.

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Please replace the paragraph beginning on line 21 of page 18 with the following amended paragraph:

A method for stretching and mounting a screen printing screen according to the invention provides an outer frame with two ends generally perpendicular to a print direction, provides an inner frame with two print direction sides generally parallel to the print direction, and provides a screen/mesh with two print direction sides and two ends, the print direction sides being generally parallel to the print direction and the ends being generally perpendicular to the print direction. An end of the screen/mesh is clamped ~~in a print direction~~. Significant tension forces are applied to the clamped screen/mesh in the print direction to produce a stretched screen/mesh. The outer frame is moved to contact the stretched screen/mesh, and the stretched screen/mesh is attached to the ends of the outer frame. The inner frame is moved to contact the screen/mesh, and the screen/mesh is attached to the print direction sides of the inner frame. Imaging/printing is provided on the screen/mesh.

Please replace the paragraph beginning on line 5 of page 19 with the following amended paragraph:

An apparatus for stretching and mounting a screen printing screen according to the invention includes an inner frame an inner frame with ~~a support barrier mechanism for ink/fluid retention for controlled transfer during a printing period~~ two print direction sides for attaching to print direction sides of a screen/mesh, the sides of the inner frame being

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positionable generally parallel to a print direction, and an outer frame ~~configured for placing~~ with two ends for attaching to ends of a screen mesh, the ends of the outer frame being positionable generally perpendicular to the print direction, the outer frame being placeable outside the inner frame. The inner and outer frames do not connect, support, or constrain each other to provide tension ~~and ink barrier functions~~, and enable application of significant tension forces ~~are applied~~ to the screen/mesh in [[a]] the print direction.

Please replace the paragraph beginning on line 14 of page 19 with the following amended paragraph:

Fig. 5 shows steps involved in a screen/mesh stretching process according to the invention. While the screen/mesh material is preferably made and/or woven of polyester, the screen/mesh material may alternatively be made and/or woven of silk, nylon, etc. The screen/mesh has two print direction sides and two ends, the print direction sides being generally parallel to the print direction and the ends being generally perpendicular to the print direction. An end of the screen/mesh is clamped ~~in one direction, the print direction~~ **40**. The screen/mesh is then stretched in the print direction **42**. [[A]] An outer frame is then moved to contact the screen/mesh **44**. The outer frame [[is]] has two ends generally perpendicular to the print direction. The ends of the outer frame are fixed to the screen/mesh permanently or via retensionable side mechanisms **46**. Excess screen/mesh [[in]] along the print direction is then trimmed and the screen/mesh is then ready for attaching to print direction sides of an inner frame **48**. **Fig. 6** shows [[the]] an

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image **50** illustrating a screen/mesh **54** mounted on the outer frame **52** following the print direction stretching steps shown in **Fig. 5**. The ends of the screen/mesh **56** are fixed to the ends of the outer frame **52**.

Please replace the paragraph beginning on line 3 of page 20 with the following amended paragraph:

Fig. 7A shows a simple pulling system **60** with equal and opposite pulling forces applied to a screen/mesh to apply ~~the print direction~~ tension to the screen/mesh along the print direction. **Fig. 7B** shows a simple pulling system **62** where one end of a screen/mesh is fixed and the other end is pulled to apply ~~the print direction~~ tension to the screen/mesh along the print direction. **Fig. 7C** shows a gravity pulling system **64** where two equal gravity loads are applied to the ends of a screen/mesh and to facilitate easy print direction movement of a screen/mesh. **Fig. 7D** shows a gravity pulling system **66** where one end of a screen/mesh is fixed and a single load is applied to the other end of the screen mesh. **Fig. 7E** shows a system **68** which relies on the use of self adhesive tape to fix the screen/mesh to the frame before tensioning. The screen/mesh is attached to the frame at one end, and then the frame is rotated into position to allow attachment of the tensioned screen/mesh. **Fig. 7F** shows a system **70** similar to the system **68** except the support roller is lowered to bring the tensioned screen/mesh into contact with the frame.

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Please replace the paragraph beginning on line 21 of page 20 with the following amended paragraph:

Figs. 8A, **8B**, and **8C** show print direction tensioning techniques of the present invention. The screen/mesh is initially precut to the correct width of an outer frame and the ends of the screen/mesh [[is]] are clamped **80**. The screen/mesh may be stretched by using equal loads applied to both ends **82**, or stretching each end outwards **84**. **Fig. 9A** shows tension forces being applied to the ends of a screen/mesh **90**. **Fig. 9B** shows a frame being moved into contact with a strained screen/mesh **92**. **Fig. 9C** shows tension forces being applied to the screen/mesh while the frame is attached to the screen/mesh **94**. **Fig. 9D** shows the screen/mesh after being trimmed once the tension forces are removed from the ends of the screen/mesh **96**.

Please replace the paragraph beginning on line 9 of page 21 with the following amended paragraph:

Fig. 10 shows an adhesive system **100** where the frame support is attached to a screen/mesh via adhesive. Initially, fixed masses are applied to the ends of the screen/mesh and cause a controlled tension force to be applied to the screen/mesh. The frame support is then raised to bring adhesive on the top of the frame into contact with the screen/mesh. Mass supports are then raised for each of the fixed masses to remove the tension forces applied to the screen/mesh. The excess screen/mesh is then cut/trimmed from the screen/mesh outside of the frame. The frame is then removed with

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the screen/mesh tensioned in the print direction. **Figs. 11A** and **11B** illustrate via **102** how the fixed weights may be attached with rotatable clamps to ensure free motion of the weights in all directions when they are attached and apply tension forces to the screen/mesh.

Please replace the paragraph beginning on line 3 of page 23 with the following amended paragraph:

Various options for the dual frame system of the present invention are shown in **Figs. 15A-15C**. In each case ends of the screen/mesh **144** are [[is]] initially tensioned and fixed to a frame [[in]] along the print direction. This is carefully done to eliminate any wrinkles in the screen/mesh and ensure a flat even surface. An image **140** of ends of a tensioned screen/mesh **144** fixed to an outer frame **142** is shown in **Fig. 15A**. The fixed inner frame of the dual frame system may be attached to apply no additional lateral tension but to support the print area, and supply the ink barriers. As shown in **Fig. 15B**, the ends of the inner frame [[ends]] **146** may include a raised level to minimize print direction contact. ~~The fixed frame acts as a barrier.~~ As shown in **Fig. 15C**, a simple push fit four piece inner frame assembly **148** may be used for applying a set lateral displacement to apply fixed lateral tension forces. The side pieces are then fixed to the screen/mesh and are locked in position until they are removed from the screen/mesh. The end pieces may be fixed in top position, then pushed down into a locked position forcing the side pieces out a fixed distance.

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Please insert the following new paragraph between lines 19 and 20 of page 23:

Figs. 16A and **16B** are respective side views **150** and **152** of ink/fluid barriers according to the present invention. **Fig. 17** is a perspective view **160** of ink/fluid barriers according to the present invention. **Fig. 18** illustrates ink/fluid barriers **170** according to the present invention. **Fig. 19** illustrates interlocking connector pieces **180** for a multi-piece frame system according to the present invention.

Please replace the paragraph beginning on line 21 of page 24 with the following amended paragraph:

A corner piece **210**, a side piece **216**, and an end piece **220** of an interlocking fixed inner frame according to the present invention are shown in **Fig. 21**. The corner piece **210** has a recess **212** configured to receive an interconnecting element **218** of the side piece **216**. The corner piece **210** also has a recess **214** configured to receive an interconnecting element **222** of the end piece **220**. A tool **230** is shown in **Fig. 22** that has two prongs **234, 238** on respective arms **232** and **236** interconnected by a spring **239**. The two prongs **234** and **238** enable ~~enabling~~ the simultaneous removal of two lugs **242, 244** from a corner piece **240** of an interlocking fixed frame. [[**Figs.**]] **Fig. 23A** ~~and 23B show~~ shows a cross sectional ~~views~~ view of a side piece **250** ~~and an end piece~~ of an interlocking frame. **Fig. 23B** shows a cross sectional view of an end piece **260** of an interlocking inner frame. **Fig. 24** shows an end of a side piece **270** including an

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interlocking member **272**. **Fig. 25A** shows a corner piece **280** of an interlocking frame. **Fig. 25B** shows a cross sectional view of the corner piece **280**. **Fig. 25C** shows how the corner piece **280** may be configured in the form of a flexible corner piece. **Fig. 26A** shows a multi-piece inner frame with side and end pieces **302**, interlocking members **304**, corner pieces **306**, and straight locking pieces **308**. Views of ink barriers **310**, **316** are shown in **Fig. 26B**. **Fig. 26C** shows a cross sectional side view **330** of a side piece with an interconnecting piece. **Fig. 26D** shows a cross sectional side view **350** of an end piece with an interconnecting piece. **Fig. 27A** shows a top view **370** of end frame pieces before displacement of the end frame pieces. **Fig. 27B** shows a top view **380** of end frame pieces after displacement of the end frame pieces. **Fig. 28** shows a top perspective view **400** of a lock piece according to the present invention. **Fig. 29** shows a cross sectional side view **500** of a lock piece. **Fig. 30** shows a cross sectional side view **510** of a mechanism allowing the forcing apart of pieces of an interlocking frame.

Please replace the paragraph beginning on line 3 of page 26 with the following amended paragraph:

An inner frame parallel guide concept is shown in **Fig. 35**. The inner frame parallel guide **690** has locking pin holes to provide positive placement, a width guide with optional dimension markers **692**, and a locking screw **694** for setting the width guide **692** setting. The locking screw may alternatively be positioned on the side of the parallel guide **690**. An inner frame side piece **700** with a profiled end is shown in

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Fig. 36. The profiled end **700** includes a bottom bar **702**, an end support **704**, a top bar **706**, and a profiled corner **708** in the top bar to assist end piece fitting. The top bar **706** also includes a locking notch **710**. The end piece may be fitted into the side recess to provide lateral tension perpendicular to the print direction. The forces required to pull a profiled end into a tension applying position depend on the frame size and the screen/mesh properties. For small frames, the forces may be applied manually. For larger frame sizes, mechanical and/or pneumatic assistance may be required. **Fig. 37** shows a side piece **720** with a profiled corner section that matches an end piece **724** and a cross support **722**.

Please replace the paragraph beginning on line 20 of page 26 with the following amended paragraph:

An image **800** of a screen/mesh **810** following print direction stretching is shown in **Figs. 38A** and **38B**. The screen/mesh **810** is fixed to an outer frame **806**. An image **820** of an inner frame **826** placed on a print direction stretched screen/mesh **840** is shown in **Figs. 39A** and **39B**. The screen/mesh **840** is fixed to an outer frame **830**. The inner frame **826** includes cross support elements **828** and **836**. An image **850** of an inner frame **856** fixed in position on a stretched screen/mesh **870** is shown in **Figs. 40A** and **40B**. The screen/mesh **870** is fixed to an outer frame **860**. The inner frame **856** includes cross support elements **858**, **866**, and side pieces **868**. An image **880** of inner frame sides **886** fixed in position with end pieces **910** fitted in location on a stretched

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screen/mesh **900** is shown in **Figs. 41A** and **41B**. The screen/mesh **900** is fixed to an outer frame **890**. The inner frame sides **886** include cross support elements **884** and **885** and end support elements **910**. Lower level tension forces perpendicular to the print direction are applied to a screen/mesh **920** after an inner frame is mounted on the screen/mesh **920**, as shown in **Fig. 42**. A deflected screen/mesh **922** following the fitting of inner frame end pieces is shown in **Fig. 43**. [[A]] An image **930** of a screen/mesh **948** with inner frame cross supports removed and end pieces **946** locked into position with locking clips **944** is shown in [[**Fig.**]] **Figs. 44A** and **44B**. The screen/mesh **948** is fixed to an outer frame **938**. An image **950** of a screen/mesh **970** with inner frame cross supports removed and end pieces **966** locked into position with locking clips **964** is shown in **Figs. 45A** and **45B**. The screen/mesh **970** is fixed to an outer frame **958**. Once the inner frame [[is]] sides **956** are attached, and the screen/mesh **970** has been stretched, [[and]] the screen/mesh **970** is ready for stencil application and imaging in a potential image area **972** ~~(see **Figs. 45A and 45B**)~~. [[A]] An image **980** of a screen/mesh **1010** with screen and ink/fluid barriers **998** in place is shown in **Figs. 46A** and **46B**. The screen/mesh **1010** has inner frame cross supports removed and end pieces **996** locked into position with locking clips **994**. The screen/mesh **1010** is fixed to an outer frame **994**. Once the inner frame **986** is attached, and the screen/mesh **1010** has been stretched, the screen/mesh **1010** is ready for stencil application and imaging in a potential image area **1012**.

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Please replace the paragraph beginning on line 15 of page 27 with the following amended paragraph:

[[A]] An image **1030** of a single-piece inner frame ink/fluid barrier structure [[**1030**]] **1032** resting on a screen/mesh **1034** is shown in **Figs. 47A** and **47B**. A corner structure **1040** of [[the]] a multi-piece inner frame ink/fluid barrier structure is shown in **Fig. 48**. A portion of an ink/fluid barrier **1058** on an end or side piece **1052** is positioned on a screen/mesh **1050** and attached via **1054** and **1056** is shown in **Fig. 49**. Various ink/fluid barrier structures **1060** are shown in **Fig. 50**. Pre-coated screen/mesh properties are shown in **Figs. 51A-51D**. **Fig. 51A** shows an image **1070** of a screen mesh **1072** with an image area **1074**. Additional screen/mesh support strips **1076** for lateral tensioning on the screen mesh **1072** are shown in **Fig. 51B**. **Figs. 51C** and **51D** show elements **1080, 1082,** and **1086** of a side piece on a support coating **1084** of a screen mesh. Pre-cut screen/mesh pieces **1130** with image areas **1132** separated with protected layers **1140** for shipping and storage are shown in **Fig. 53**.

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